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OWENS CORNING 2790 COLUMBUS ROAD GRANVILLE, OH 43023			ART UNIT 3637	PAPER NUMBER

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**GROUP 3600**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/051,486  
Filing Date: January 18, 2002  
Appellant(s): PHILLIPS, JOHN D.

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James J. Dottavio  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 5/15/06 appealing from the Office action mailed 5/18/05.

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**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5666776	WEAVER ET AL	9-1997
D336347	HANNAH ET AL	6-1993
4274243	CORBIN ET AL	6-1981

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

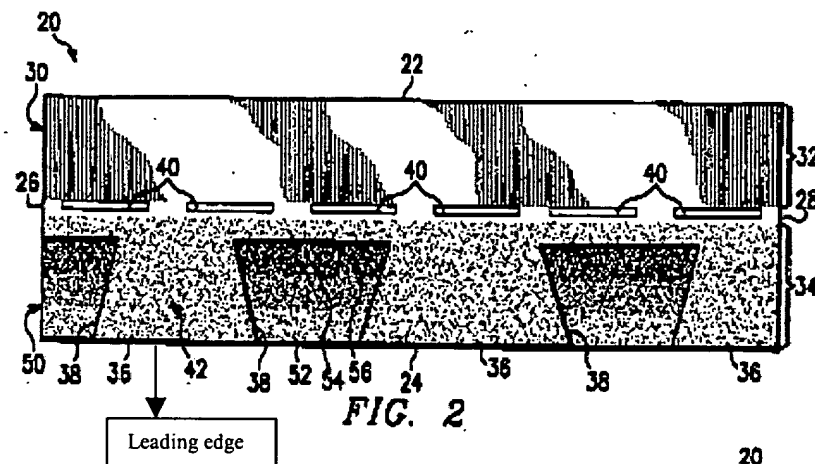
***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weaver et al (5666776) in view of Hannah et al (D336347) and Corbin et al (4274243).

Weaver et al (below) shows a laminated roofing shingle having an overlay(20) having an underside and a plurality of spaced apart tabs ( 36), each one of the tabs (36) having a leading edge (see below), the tabs defining openings adjacent the tabs, an underlay (50) attached to the underside of the overlay to cooperatively form the laminated roofing shingle, the underlay having a leading edge (52), a second shadow line (56), a remaining portion between the leading edge of the underlay and the second shadow line, the leading edge of the underlay generally co-aligning with the leading edge of the tabs, the underlay having a portion exposed through the openings defined adjacent the tabs, a layer of granules disposed on the underlay in a manner whereby the second shadow line of the underlay is substantially darker than the granules on the remaining portion of the underlay, said overlay and said underlay are each formed from a base material comprising fiberglass mat that has been coated with asphalt, the granules on the second shadow line being black granules (col 4 line 5).



Weaver et al does not show the tab having a first shadow line and a remaining portion, a layer of granules disposed on the first shadow line of the tabs and on the remaining portion of the tabs in a manner whereby the first shadow line of the tabs being substantially darker in color than the remaining portion of the tabs, the granules on the first shadow line being black granules.

Weaver discloses granules of a wide range of colors from white and black to various shades of red, green, brown and any combination thereof may be used to provide a roof having the desired color shingle, the granules being applied to the tabs.

Hannah et al (figure 23) shows strips with tabs with a first shadow line (the darken part at the beginning of the tab) and a remaining portion to project an aesthetic appearance.

Corbin et al discloses granules with dark color being deposited on the surface of a shingle to form color bands.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Weaver et al to show the tab having a first shadow line and a remaining portion as taught by Hannah et al, a layer of granules disposed on the first shadow line of the tabs and on the remaining portion of the tabs in a manner whereby the first shadow line of the tabs

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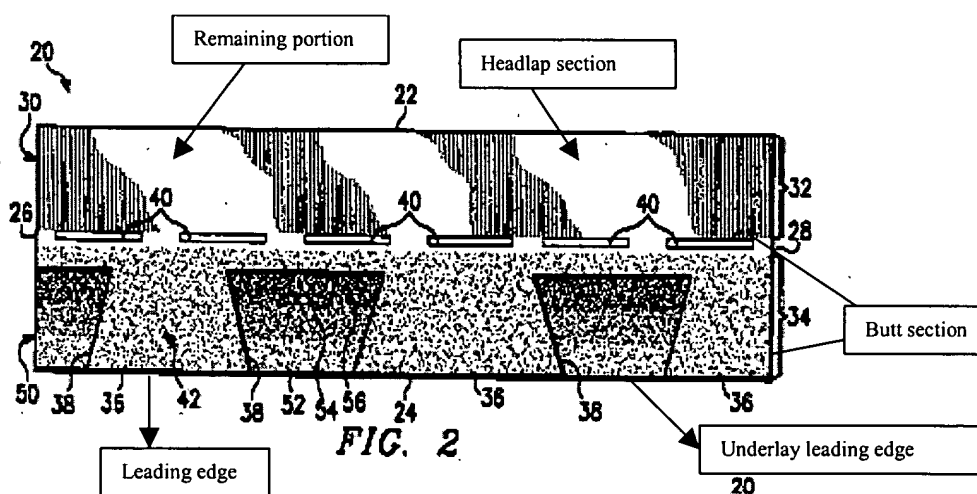
being substantially darker in color than the remaining portion of the tabs as taught by Corbin et al, the granules on the first shadow line being black granules because forming the tabs with a first shadow line and a layer of darker color granules than that of the remaining portion would enable the formation of an aesthetic appearance to the shingles as disclosed by Hannah et al and Corbin et al.

Per claims 2, 3, 6 Weaver et al as modified shows the granules on the first shadow line and the granules on the shadow line on the trailing edge of the tabs being generally uniform in color, the shadow line on the trailing edge of the tabs being substantially narrow relative to the shadow line on the trailing edge of the underlay in combination with other claimed limitations.

3. Claims 7-11, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weaver et al (5666776) in view of Hannah et al (D336347) and Corbin et al (4274243).

Weaver et al (below) shows a laminated roofing shingle comprising an overlay having an underside, headlap section (sections comprise of 30 or 32), a plurality of spaced apart tabs (36) extending from the headlap section, the headlap section having a leading edge (the leading edge of 30 or 32), each one of the tabs having a leading edge (36), an outer surface, an underlay (50) attached to an underside of the overlay to cooperatively form the laminated roofing shingle, the underlay having an outer surface, a leading edge, a trailing edge, a second shadow line (56) and a remaining portion (54) between the leading edge of the underlay and the second shadow line, the tabs and the leading edge of the headlap section defining openings, the leading edge of the underlay generally co-aligning with the leading edge of the tabs, the second shadow line and the remaining portion of the underlay being on the outer surface of the underlay, the second shadow line extending from the trailing edge of the underlay to the remaining portion of the underlay, the

underlay having a portion exposed through the openings defined by the tabs and the leading edge of the headlap section, the second shadow line being exposed through the opening and adjacent the leading edge of the headlap section, a layer of granules disposed on the underlay in a manner whereby the second shadow line (56) is substantially darker than the granules on the remaining portion of the underlay, the overlay and the underlay each being formed from a base material comprising a fiberglass mat that has been coated with asphalt, the granules on the granules on the second shadow line being black, a second shadow line (56).



Weaver et al does not show the tab having a first shadow line and a remaining portion, said first shadow line and the remaining portion being on the outer surface of the tabs, the first shadow line extending from the leading edge of the tabs to the remaining portion of the tabs, a layer of granules disposed on the first shadow line of the tabs and on the remaining portion of the tabs in a manner whereby the first shadow line of the tabs is substantially darker in color than the granules on the remaining portion of the tabs.

Weaver discloses granules of a wide range of colors from white and black to various shades of red, green, brown and any combination thereof may be used to provide a roof having the desired color shingle, the granules being applied to the tabs.

Hannah et al (figure 23) shows strips with tabs with a first shadow line (the darken part at the beginning of the tab and a remaining portion to project an aesthetic appearance.

Corbin et al discloses granules with dark color being deposited on the surface of a shingle to form color bands.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Weaver et al to show the tab having a first shadow line and a remaining portion, said first shadow line and the remaining portion being on the outer surface of the tabs as taught by Hannah et al, the first shadow line extending from the leading edge of the tabs to the remaining portion of the tabs, a layer of granules disposed on the first shadow line of the tabs and on the remaining portion of the tabs in a manner whereby the first shadow line of the tabs is substantially darker in color than the granules on the remaining portion of the tabs as taught by Corbin et al because forming the tabs with a first shadow line and a layer of darker color granules than that of the remaining portion would enable the formation of an aesthetic appearance to the shingles as disclosed by Hannah et al and Corbin et al.

Per claim 21, Weaver et al as modified shows the leading edge granules being darker than the remaining portion having granules thereon.

Per claims 8, 11, Weaver et al as modified shows the granules on the first shadow line and the granules on the shadow line on the trailing edge of the tabs being generally uniform in

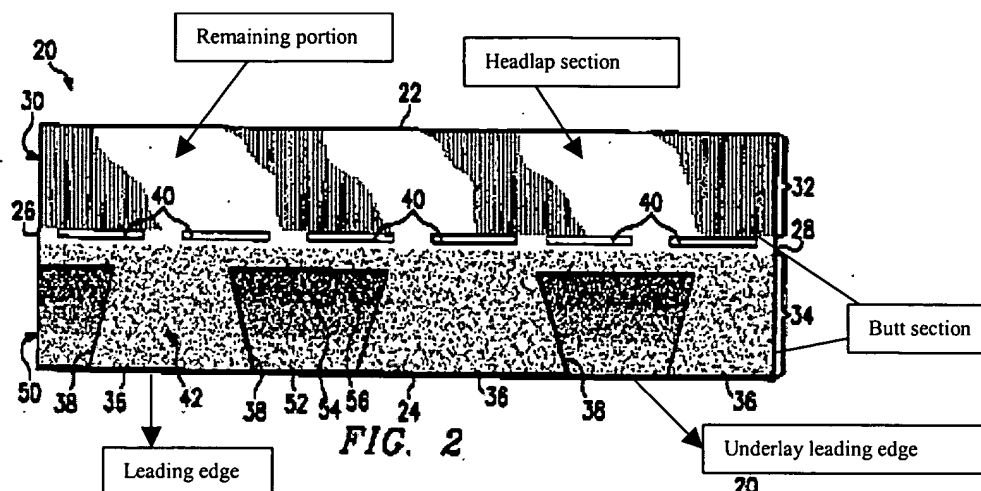


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color, the shadow line on the trailing edge of the tabs being substantially narrow relative to the shadow line on the trailing edge of the underlay in combination with other claimed limitations.

4. Claims 24, 26-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weaver et al (5666776) in view of Hannah et al (D336347) and Corbin et al (4274243).

Weaver et al (below) shows a laminated roofing shingle having a headlap section and a butt section (the section starting below 30 or 32) comprising an overlay having a tab (36), the tab having an outer surface with a trailing edge adjacent the headlap section and a leading edge (36) spaced from the trailing edge, the tab having a width, an underlay (50) attached to an underside of the overlay, the underlay having an outer surface, the underlay outer surface positioned adjacent the tab with a trailing edge (26) adjacent the headlap section, a leading edge spaced from the trailing edge and first colored granules (42) adhered to the outer surface of the tab adjacent the leading edge of the tab to produce a first colored portion, second colored granules (the part around the openings 40) adhered to the outer surface of the tab separated from the leading edge (36) of the tab by the first colored granules to produce a second colored portion that is different coloration or shade than the first colored portion, the second colored granules having a different coloration or shade than the first colored granules, third colored granules (56) adhered to the trailing edge of the outer surface of the underlay to provide a third colored portion, fourth color granules (52) adhered adjacent the leading edge of the outer surface of the underlay having different coloration or shade than the third colored granules, ,



the third colored granules (56) form a shadow line adjacent the trailing edge of the outer surface of the underlay, the third colored granules comprise darker granules than the fourth colored granules, the first and third colored granules comprise black colored granules, a second tab (the next tab), the second tab adjacent the outer surface of the underlay, the second tab having sixth colored granules (42) forming a shadow line adjacent a leading edge of the second tab.

Weaver et al does not show said first colored granules form a shadow line adjacent the leading edge of the tab across substantially the entire width of the tab, the first colored granules (42) comprise darker granules than the second colored granules, the first colored granules comprise black colored granules, the second tab having sixth colored granules (42) forming a shadow line adjacent a leading edge of the second tab.

Weaver discloses granules of a wide range of colors from white and black to various shades of red, green, brown and any combination thereof may be used to provide a roof having the desired color shingle, the granules being applied to the tabs.

Hannah et al (figure 23) shows strips with tabs with a first shadow line (the darken part at the beginning of the tab and a remaining portion to project an aesthetic appearance.

Corbin et al discloses granules with dark color being deposited on the surface of a shingle to form color bands.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Weaver et al to show the first colored granules form a shadow line adjacent the leading edge of the tab across substantially the entire width of the tab, the first colored granules comprise darker granules than the second colored granules, the first colored granules comprise black colored granules, the second tab having sixth colored granules forming a shadow line adjacent a leading edge of the second tab because having the first colored granules form a shadow line adjacent the leading edge of the tab across substantially the entire width of the tab, the first colored granules comprise darker granules than the second colored granules, the first colored granules comprise black colored granules, the second tab having sixth colored granules forming a shadow line adjacent a leading edge of the second tab would form an aesthetic appearance to the shingles as disclosed by Hannah et al and Corbin et al.

5. Claims 25, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weaver et al (5666776) in view of Hannah et al (D336347) and Corbin et al (4274243).

Weaver et al as modified shows all the claimed limitations except for fifth colored granules adhered to the outer surface of the tab separated from the first and sixth colored granules by the second colored granules, the fifth colored granules having different coloration or shade than the second colored granules and forming a shadow line adjacent the headlap section.

Weaver et al further discloses individual shingles being manufactured in a variety of weights and colors being well known, a color gradient or gradation can be put on portions of the shingle to create the illusion of thickness or depth on a relatively flat surface.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Weaver et al's modified structures to show fifth colored granules adhered to the outer surface of the tab separated from the first colored granules by the second colored granules, the fifth colored granules having different coloration or shade than the second colored granules and forming a shadow line adjacent the headlap section because having a color gradient on the shingle would create the illusion of thickness or depth on a relatively flat surface as taught by Weaver et al.

6. Claims 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weaver et al (5666776) in view of Hannah et al (D336347) and Corbin et al (4274243).

Weaver et al as modified shows all the claimed limitations. The claimed method steps of making a laminated roofing shingle would have been the obvious method steps of making Weaver et al's modified laminated shingle.

7. Claims 34-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weaver et al (5666776) in view of Hannah et al (D336347) and Corbin et al (4274243).

Weaver et al as modified shows all the claimed limitations. The claimed method steps of making a laminated roofing shingle would have been the obvious method steps of making Weaver et al's modified laminated shingle.

#### **(10) Response to Argument**

With respect to applicant's argument that the missing elements from Weaver are not taught by Hannah or Corbin, examiner respectfully points out Weaver as modified by Hannah and Corbin shows the limitations as claimed.

With respect to Hannah, the reference teaches a tab having a darker first shadow line illustrated on the tab of the shingle. Hannah thus teaches a shingle having different coloring schemes to provide an aesthetic surface, specifically with the use of a darker shadow line and the remaining area, with the remaining area being lighter in color.

Corbin discloses a shingle with an aesthetic surface formed by having a layer of the shingle being formed different bands of color.

Combining the references Hannah and Corbin with Weaver thus shows the shadow lines and remaining areas as claimed.

The combined references also show the fifth and sixth colored granules as set forth in the office action above.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to combine is found in the references themselves as stated above.

With respect to claims 1, 7, 12, the combination of the references shows all the claimed structural limitations including the granules being applied to a leading edge of tabs so that the leading edge of the tabs being generally darker in color than a remaining portion of the tabs. The

claimed method steps thus would have been the obvious method steps of making Weaver et al's modified structures as stated above. The arguments are thus moot.

With respect to claims 21, 22, 23, examiner respectfully points out that Hannah teaches tabs having the leading edge being generally darker than a remaining portion of the overlay as shown in figure 23. Applicant's statements that Hannah's tabs being made of an overlay and underlay with coloring, do not prevent the fact that the tabs show the coloring as claimed. The arguments are thus moot.

With respect to claims 24, 34, examiner respectfully points out that Hannah shows tabs with two different colored portions as in figure 23. Applicant's arguments that the different colors are on different layers of the tabs, do not prevent the fact that the tabs show different coloring schemes. The modification of Weaver with Hannah and Corbin thus shows the limitations as claimed. The arguments are thus moot.

With respect to claims 6, 11, 25-27, 33, 43, Weaver as modified shows the limitations as claimed as set forth in the office action above.

As the rejection to the independent claims above are proper. The rejections of dependent claims are also proper.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the

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applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Phi Dieu Tran A



6/9/06

Conferees:

LANNA MAI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600



Lanna Mai



Pete Cuomo

